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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,103	11/21/2003	Jang-Kun Song	AB-1346 US	1943

7590

08/24/2005

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EXAMINER

WANG, GEORGE Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,103

Applicant(s)

SONG, JANG-KUN

Examiner

George Y. Wang

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 17-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-16 in the reply filed on May 24, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The abstract of the disclosure is objected to because the method of manufacturing the LCD drawn to claims 17-30 was not elected. Thus, the abstract, which discloses both the apparatus and method is not fully descriptive of the current invention as claimed. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyazaki et al. (U.S. Patent No. 5,757,451, hereafter "Miyazaki").

As to claim 1, Miyazaki discloses a liquid crystal display (LCD) apparatus (fig. 2) comprising a first substrate (50) including a first transparent substrate (71) having a pixel area, a pixel voltage applying part (52, 54-56) disposed at the pixel area so as to output a pixel voltage, a color filter (58R, 58G) disposed at the pixel area, a color filter spacer (58G, 58B) disposed between the pixel area and an adjacent pixel area, the color filter spacer having a same material as the color filter, a pixel electrode (61) on the color filter, a second substrate (70) including a second transparent substrate (71) and a common (72) electrode on the second substrate corresponding the pixel electrode, and liquid crystal (40) disposed between the first and second substrates.

5. As per claim 2, Miyazaki discloses the LCD apparatus as recited above where the color filter comprises a red, a green, and a blue color filter (fig. 3, R, G, B) and the color filter spacer comprise at least one of a red, a green, and a blue filter spacer (fig. 2, ref. 58G, 58B; col. 6, lines 51-58).

6. Regarding claims 3, 5, 7, and 9, Miyazaki discloses the LCD apparatus as recited above where the second substrate comprises a light blocking pattern (fig. 1, ref. 36) having a lattice-shape (col. 5, lines 2-3) of a photosensitive pattern (col. 11, lines 21-25) disposed on the common electrode (34), where the pattern blocks light incident between the pixel area and the adjacent pixel.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 6, 8, 10-11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki in view of Yamada (U.S. Patent No. 6,140,988).

Miyazaki discloses the LCD apparatus as recited above having a liquid crystal layer (40) and light visual angle pattern (col. 1, lines 23-34) on the common electrode, however, the reference fails to specifically disclose the liquid crystal molecules being vertically aligned.

Yamada discloses an LCD apparatus where the liquid crystal molecules being vertically aligned (col. 1, lines 29-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the liquid crystal molecules being vertically aligned since one would be motivated to provide a display apparatus with high contrast and outstanding viewing angle characteristics (col. 1, lines 39-45).

9. Claims 12, 14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki in view of Yamada, and in further view of Iida et al. (U.S. Patent No. 5,801,797, hereafter "Iida").

Miyazaki, when modified by Yamada, discloses the LCD apparatus as recited above, however, the reference fails to specifically disclose the second substrate further comprising transparent spacers disposed on the common electrode.

Iida discloses an LCD device having spacers made of transparent resin (col. 13, lines 52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the second substrate further comprising transparent spacers disposed on the common electrode since one would be motivated to provide a display having a large display area in which no display-impossible region is formed (col. 13, lines 55-59).

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw
August 22, 2005


ROBERT KIM
SUPERVISORY PATENT EXAMINER